



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/766,803 | 01/30/2004 | Marceau Coupechoux | Q79475 | 3115 |

23373 7590 05/31/2006
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

PHU, SANH D

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-----------------|-------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/766,803 | COUPECHOUX ET AL. | |
| | Examiner | Art Unit | |
| | Sanh D. Phu | 2618 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-10 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/3/04&5/5/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The IDS filed 1/3/2004 and 5/5/2004 have been considered and recorded in the file.

Claim Objections

3. Claim 5 is objected to because of the following informalities: claim 5 recites the limitation "the third path"; this limitation is lack of antecedent basis. It appears that the limitation should be changed to --the first path-- for referring to "a first path", previously recited in claim 1. Appropriate correction is required.
4. Therefore, in this Office Action, it is assumed that the limitation "the third path" of claim 5 refers to "a first path", previously recited in claim 1.

Claim Rejections – 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 2, 5 and 7–10 are rejected under 35 U.S.C. 102(e) as being anticipated by Chari et al (6,704,301).

–Regarding to claim 1, see figures 2, 3A, 5, 6A, col. 3, line 9 to col. 7, line 27, col. 9, line 18 to col. 13, line 11, Chari et al discloses a method (see figure 5) of selecting of a path to establish a communication link between a first node (“client 550”) and an access point (“Server 510”) being one of a plurality of access points of a wireless cellular telecommunication system, (see col. 9, lines 18–36, col. 11, line 65 to col. 12, line 3), the wireless cellular

telecommunication system having second nodes ("other clients") being adapted to serve as relay nodes (see col. 10, lines 16–17), the method comprising:

step of receiving of data ("beacon") from at least one of the second nodes, the data being indicative of a first quality measure ("link quality") of a first path from the one of the second nodes to its access point (see col. 10, lines 28–46),

step of comparing of a second quality measure of a second path from the first node to its access point with the first quality measure (see col. 3, lines 16–45, col. 28–46, col. 12, lines 29–65), and

step of selecting of the first path (as a selected path) to replace the second path (as an unselected path) if the first quality measure is superior to the second quality measure (see col. 3, lines 16–45, col. 28–46, col. 5, lines 36–40, col. 12, lines 29–65).

–Regarding to claim 2, Chari et al discloses that the wireless cellular telecommunication systems is a WLAN-type network (see figure 2 and col. 2, lines 32–47, col. 3, lines 9–24).

-Regarding to claim 5, Chari et al discloses that the first and the second quality measures depend on the number of hops in the first path and in the second path, respectively (see col. 3, lines 34-50, col. 12, lines 31-35).

-Regarding to claim 7, see figures 2, 3A, 5, 6A, col. 3, line 9 to col. 7, line 27, col. 9, line 18 to col. 13, line 11, Chari et al discloses a method (see figure 5) for selecting of a path to establish a telecommunication link between a first node ("Client 550") and an access point ("Server 510") being one of a plurality of access points of a wireless cellular telecommunication system, (see col. 9, lines 18-36, col. 11, line 65 to col. 12, line 3), the wireless cellular telecommunication system having second nodes ("other clients") being adapted to serve as relay nodes (see col. 10, lines 16-17), comprising:

step of inputting of data ("beacon") which have been received from at least one of the second nodes, the data being indicative of a first quality measure ("link quality") of a first path from the one the second nodes to its access point (see col. 10, lines 28-46),

step of comparing of a second quality measure of a second path from the first node to its access point with the first quality measure (see col. 3, lines 16–45, col. 28–46, col. 12, lines 29–65), and

step of selecting of the first path (as a selected path) to replace the second path (as an unselected path) if the first quality measure is superior to the second quality measure (see col. 3, lines 16–45, col. 28–46, col. 5, lines 36–40, col. 12, lines 29–65).

Chari et al further teaches that the method can be carried out by a computer program product (see figure 4) comprising program means (440, 450, 420, 427) for performing the steps of the method (see col. 8, lines 8–64).

–Regarding to claim 8, see figures 2, 3A, 5, 6A, col. 3, line 9 to col. 7, line 27, col. 9, line 18 to col. 13, line 11, Chari et al discloses a mobile node for a wireless cellular telecommunication system (see col. 9, lines 32–36), the wireless cellular telecommunication system having second nodes (“other clients”) being adapted to serve as relay nodes(see col. 10, lines 16–17), a first node (“Client 550”) (see figure 5) of the telecommunication system comprising means (570, 580) (see figure 5, col. 10, lines 35–46) for selecting of a path to

establish a telecommunication link to one of a plurality of access points of the wireless cellular telecommunication systems (see col. 2, lines 48–55) by performing the following steps:

step of receiving of data (“beacon”) from at least one of the second nodes, the data being indicative of a first quality measure (“link quality”) of a first path from the one of the second nodes to its access point (see col. 10, lines 28–46),

step of comparing of a second quality measure of a second path from the node to its access point to the first quality measure (see col. 3, lines 16–45, col. 28–46, col. 12, lines 29–65), and

step of selecting of the first path, as a selected path, to replace the second path as an unselected path, if the first quality measure is superior to the second quality measure (see col. 3, lines 16–45, col. 28–46, col. 5, lines 36–40, col. 12, lines 29–65).

–Regarding to claim 9, Chari et al discloses that the first and second quality measures depend on the number of hops in the first path and in the

Art Unit: 2618

second path to the respective access points (see col. 3, lines 34–50, col. 12, lines 31–35)..

–Regarding to claim 10, see figures 2, 3A, 5, 6A, col. 3, line 9 to col. 7, line 27, col. 9, line 18 to col. 13, line 11, Chari et al discloses a wireless cellular telecommunication system (see figure 2) having a plurality of access points (220A, 220B), a first node (230E) and a plurality of second nodes (230A, 230B) being adapted to serve as relay nodes, the first node comprising means (580, 570) (see figure 5) for performing the following steps:

step of receiving of data (“beacon”) from at least one of the second nodes, the data being indicative of a first quality measure (“link quality”) of a first path from the one of the second nodes to its access point (see col. 10, lines 28–46),

step of comparing of a second quality measure of a second path from the first node to its access point with the first quality measure (see col. 3, lines 16–45, col. 28–46, col. 12, lines 29–65), and

step of selecting of the first path,, as a selected path, to replace the second path, as unselected path, if the first quality measure is superior to the

Art Unit: 2618

second quality measure (see col. 3, lines 16–45, col. 28–46, col. 5, lines 36–40, col. 12, lines 29–65).

Claim Rejections – 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chari et al in view of Serceki (2004/0102192).

–Regarding to claim 3, Chari et al does not disclose step of scanning of a set of frequencies by the first node to receive the data, as claimed.

However, Chari et al teaches that the data are transmitted as beacon signals from the plurality of access points of a wireless cellular telecommunication system (see col. 11, line 66 to col. 12, line 3).

Serceki teaches that each of a plurality of access points can transmit beacon signals to its client nodes on a respective frequency of a set of channel

frequencies so that the client nodes can scan by tuning over the set of channel frequencies to receive the respective beacons signals (see figure 1, and [0009, 0028]).

Since Chari et al does not teach in detail how the beacon signals are transmitted from plurality of access points and received by the first node, it would have been obvious for a person skilled in the art to implement Chari et al in such a way that each of the plurality of access points would transmit beacon signals to its client nodes on a respective frequency of a set of channel frequencies so that the first node would scan over the set of channel frequencies to receive the respective beacons signals, as taught by Serceki, so the data would be obtained by the first node as required.

With such the implementation, Chari et al in view of Serceki teaches step of scanning of a set of frequencies by the first node to receive the data, as claimed.

–Regarding to claim 6, Chari et al does not discloses that the data is received by the first nodes on a pre-defined frequency, as claimed.

However, Chari et al teaches that the data are transmitted as beacon signals from the plurality of access points of a wireless cellular telecommunication system (see col. 11, line 66 to col. 12, line 3).

Serceki teaches that each of a plurality of access points can transmit beacon signals to its client nodes on a pre-defined frequency of a set of channel frequencies so that the client nodes can scan by tuning over the set of channel frequencies to receive the respective beacons signals (see figure 1, and [0009, 0028]).

Since Chari et al does not teach in detail how the beacon signals are transmitted from plurality of access points and received by the first node, it would have been obvious for a person skilled in the art to implement Chari et al in such a way that each of the plurality of access points would transmit beacon signals to its client nodes on a pre-defined frequency of a set of channel frequencies so that the first node would tune to the pre-defined frequency to receive the respective beacons signal so the data would be obtained by the first node as required.

With such the implementation, Chari et al in view of Serceki teaches that the data is received by the first nodes on a pre-defined frequency, as claimed.

Allowable Subject Matter

9. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

–Regarding to claim 4, Chari et al in view of Serceki fails to further teach that the scan is performed repeatedly after certain time intervals whereby the length of the time intervals is adapted to the second quality measure.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanh D. Phu whose telephone number is (571)272-7857. The examiner can normally be reached on M–Th from 7:00–17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on (571) 272–

Art Unit: 2618

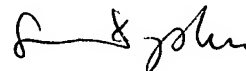
4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SP

Sanh D. Phu
Examiner
Division 2618

5/19/06



**SANH D. PHU
PATENT EXAMINER**